

Abstract

An ion mobility spectrometer is described in which the reaction-ionization chamber and/or the ion drift chamber are constructed with one or more single-piece glass tubes. The inner surface of the tube is rendered electrically conductive by thermal and/or chemical treatment thereof. The glass tube(s) are used in place of the stack assemblies of metal and ceramic annular components that typically used in such devices. The use of the glass tube(s) provides a significant reduction in the number of parts used in such spectrometers, simplification in their manufacture, and improvements in their performance and reliability.